

IN THE CLAIMS:

Claims 23, 25, 28 and 30 are amended herein. New claims 34 through 38 are added.

All pending claims and their present status are produced below.

1. (previously presented) A communication apparatus for processing digital information included in transmissions received from cordless devices, the apparatus comprising:

an input capture mechanism coupled to an input and configured to collect input

capture data associated with the digital information included in at least a first transmission, the first transmission received from a first cordless device configured to transmit asynchronously;

a microcontroller unit having an input that receives a digital communication packet derived from the transmission, the microcontroller unit for processing the digital communication packet and further comprising:

an edge detection mechanism coupled to the input for detecting state transitions included in the digital communication packet;

a timer having a first value that is read in response to the edge detection mechanism detecting a first state transition, and a second value that is read in response to the edge detection mechanism detecting a second state transition; and

a central processing unit having access to the input capture mechanism, the central processing unit configured to decode the digital information to derive the associated input capture data, and configured to format the input capture data associated with the digital information; and

a data report engine operatively coupled to the central processing unit, the data report engine configured to communicate the formatted input capture data to a host system having no active driver corresponding to the first cordless device.

2. (previously presented) The apparatus of claim 32, wherein the valid pulse width indicates that a valid start pattern of the digital communication packet has been received.

3. (previously presented) The apparatus of claim 32, wherein the valid pulse width indicates that a valid stop pattern of the digital communication packet has been received.

4. (previously presented) The apparatus of claim 32, wherein the valid pulse width indicates that a valid bit pattern of the digital communication packet has been received.

5. (previously presented) The apparatus of claim 1, wherein the data report engine further comprises:

a first data structure for declaring functionality of standard keys included on a cordless keyboard, and a second data structure for declaring functionality of a cordless mouse.

6. (Original) The apparatus of claim 5 wherein the second data structure is also for declaring functionality of system control keys and consumer control keys included on a cordless keyboard.

7. (previously presented) The apparatus of claim 1, wherein the data report engine is further configured to, in response to receiving decoded and formatted data from the central processing unit, generating a standard data report that can be communicated to, and understood by, the host system having no active driver corresponding to the first cordless device.

8. (previously presented) The apparatus of claim 31, wherein the data report engine is further configured to, responsive to a status data reporting being enabled, generating a standard data report that indicates to the host system that a status data report is available from one of the first or the second cordless device.

9. (original) The apparatus of claim 8, wherein the status data report indicates at least one of an identity of the cordless device, a battery status of the cordless device, a profile of the cordless device, a profile code of the cordless device.

10. (previously presented) The apparatus of claim 1 further comprising:
a second input capture mechanism coupled to a second input and configured to collect
input capture data associated with the digital information included in a second
transmission, the second transmission received from a second cordless device,

wherein the central processing unit can simultaneously decode and format capture data associated with digital information from a number of different communication links, each communication link associated with a different cordless device, and a different input capture mechanism.

11-16. (cancelled)

17. (previously presented) The method of claim 33 further comprising:
declaring functionality of standard keys included on a cordless keyboard so that a data report responsive to standard key activity will be understood by the host system receiving the data report.

18. (previously presented) The method of claim 33 further comprising:
declaring functionality of a mouse so that a data report responsive to mouse activity will be understood by the host system receiving the data report.

19. (previously presented) The method of claim 33 further comprising:
in response to receiving decoded and formatted data, generating a standard data report that can be transmitted to, and understood by, the host system.

20. (previously presented) The method of claim 33 further comprising:

responsive to status data reporting being enabled, generating a standard data report that indicates to the host system that a status data report is available from at least one of the first or the second cordless device.

21. (original) The method of claim 20, wherein the status data report indicates at least one of an identity of the cordless device, a battery status of the cordless device, a profile of the cordless device, a profile code of the cordless device, a status of the cordless device, and a status of the apparatus.

22. (cancelled)

23. (currently amended) A method for processing digital information included in transmissions ~~from~~ between cordless devices and a pre-existing host system, the method comprising:

collecting from a cordless device input capture data associated with the digital information included in at least a first transmission, the first transmission received from a first cordless device configured to transmit asynchronously; decoding the digital information to derive the associated input capture data; formatting the input capture data associated with the digital information; and communicating the formatted input capture data to ~~[[a]]~~ the pre-existing host system having no, the pre-existing host system without an active device driver corresponding to the first cordless device and without modifications to

hardware of the pre-existing host system corresponding to the first cordless device.

24. (previously presented) A method for communicating status information from a cordless device to a corresponding driver running on a host system, the method comprising:
receiving a standard data report that indicates that status reporting is enabled and
status data is available to be collected for the cordless device; and
retrieving asynchronously the status data, the status data including at least one of an
identity of the cordless device, a battery status of the cordless device, a profile
of the cordless device, and a profile code of the cordless device.

25. (currently amended) A method for processing digital information included in an asynchronous transmission from a composite cordless device, the method comprising:
collecting input capture data included in the digital information;
determining whether data included in the digital information is a first data type or a
second data type based on the input capture data;
communicating the first type of data to its correct destination included in a host
system having no active driver corresponding to the composite cordless
device; and
communicating the second type of data to its correct destination included in a pre-
existing host system having no, the pre-existing host system without an active
device driver corresponding to the composite cordless device and without

modifications to hardware of the pre-existing host system corresponding to the composite cordless device.

26-27. (cancelled)

28. (currently amended) A computer program product, stored on a computer readable medium, for processing digital information included in a transmission from a cordless device, wherein in response to the computer program product being executed by a processor, the processor performs the steps of:

collecting input capture data associated with the digital information included in at

least a first transmission, the first transmission received from a first cordless

device configured to transmit asynchronously;

decoding the digital information to derive the associated input capture data;

formatting the input capture data associated with the digital information; and

communicating the formatted input capture data to a pre-existing host system ~~having~~

~~no, the pre-existing host system without an active device~~ driver corresponding

to the first cordless device and without modifications to hardware of the pre-

existing host system corresponding to the first cordless device.

29. (original) A computer program product, stored on a computer readable medium, for communicating status information from a cordless device to a corresponding driver running on a host system, wherein in response to the computer program product being executed by a processor, the processor performs the steps of:

receiving a standard data report that indicates that status reporting is enabled and
status data is available to be collected for the cordless device; and
retrieving the status data, the status data including at least one of an identity of the
cordless device, a battery status of the cordless device, a profile of the
cordless device, and a profile code of the cordless device.

30. (currently amended) A computer program product, stored on a computer readable medium, for processing digital information included in a transmission from a composite cordless device, wherein in response to the computer program product being executed by a processor, the processor performs the steps of:

collecting input capture data included in the digital information;

determining whether data included in the digital information is a first data type or a
second data type based on the input capture data;

communicating the first type of data to its correct destination included in a first pre-existing host system having no, the first pre-existing host system without an active driver corresponding to the composite cordless device and without modifications to hardware of the first pre-existing host system corresponding to the composite cordless device; and

communicating the second type of data to its correct destination included in a second pre-existing host system having no, the second pre-existing host system without an active driver corresponding to the composite cordless device and without modifications to hardware of the second pre-existing host system corresponding to the composite cordless device.

31. (previously presented) The apparatus of claim 1, wherein the input capture mechanism is further configured to collect input capture data associated with the digital information included in a second transmission, the second transmission received from a second cordless device configured to transmit synchronously in response to a polling signal from the host.

32. (previously presented) The apparatus of claim 1, wherein the digital information includes digital communication packets and wherein the input capture mechanism further comprises:

an edge detection mechanism coupled to the input for detecting state transitions

included in the digital communication packets; and

a timer having a first value that is read in response to the edge detection mechanism

detecting a first state transition, and a second value that is read in response to

the edge detection mechanism detecting a second state transition;

wherein the central processing unit is configured to have access to the first and

second values of the timer for determining whether a valid pulse-width has

been received.

33. (previously presented) The method of claim 23, further comprising:

collecting input capture data associated with the digital information included in a

second transmission, the second transmission received from a second cordless

device configured to transmit synchronously in response to a polling signal from the host; and

communicating the formatted input capture data to the host system, the host system further having no active driver corresponding to the second cordless device.

34. (new) A method for processing digital information included in transmissions between cordless devices and a pre-existing host system, the method comprising:

collecting from a cordless device input capture data associated with the digital information included in at least a first transmission, the first transmission received from a first cordless device configured to transmit asynchronously;

collecting input capture data associated with the digital information included in a second transmission, the second transmission received from a second cordless device configured to transmit synchronously in response to a polling signal from the host system;

decoding the digital information to derive the associated input capture data of each transmission;

formatting the input capture data associated with the digital information of each transmission;

generating, in response to receiving decoded and formatted data, a standard data report that is understandable to the host system; and

communicating to the host system the standard data report;

the host system without an active device driver corresponding to the first cordless device and without an active device driver corresponding to the second cordless device.

35. (new) The method of claim 34, wherein the data report corresponds to functions associated with keys on a cordless keyboard, the cordless keyboard providing the first transmission or the second transmission.

36. (new) The method of claim 34, wherein the data report corresponds to functions associated with a cordless mouse, the cordless mouse providing the first transmission or the second transmission.

37. (new) The method of claim 34, further comprising:
enabling status data reporting; and
generating a standard data report to indicate to the host system that a status data report is available from at least one of the first or the second cordless device.

38. (new) The method of claim 37, wherein the status data report indicates at least one of an identity of the cordless device, a battery status of the cordless device, a profile of the cordless device, a profile code of the cordless device, a status of the cordless device, and a status of the apparatus.